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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,310	04/02/2001	William R. Brown JR.	OB-193	9388

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The Gillette Company
Prudential Tower Building
Boston, MA 02199

EXAMINER

COLE, LAURA C

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 05/06/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/824,310

Applicant(s)

BROWN ET AL.

Examiner

Laura C Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claims 16 and 19 are objected to because of the following informalities:

It appears that claims 16 and 19 are the same and depend from the same claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 22 and 26-30 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 22 requires a cross-section other than a round shape (Lines 2-3 of Claim 22) and Claim 26 (which is dependent on 22) further limits the cross-section to be round in shape, which is impossible. Claims 27-30 also are limitations on a round bristle tuft.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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3. Claims 2, 13, and 22-30 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is meant by "round in shape" as it appears in claims 2, 13, 22, and 26-28. Does "round" include oval shapes?

Claim 25 recites the limitation "the group of characteristics" in Line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 25 recites the limitation "the two tufts" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 27 recites the limitation "the other tuft" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 28 recites the limitation "the other tuft" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 29 recites the limitation "the three tufts" in Lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claims 29 and 30 recite specific length and diameter dimensions, however claim 29 uses the units "mm" and claim 30 uses the units "mil." A mil is 1/1000th of an inch, so these claims use different systems of measurement, which is unclear.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 15, 16, 18-20, and 22-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Beals et al., USPN 6,308,367.

Beals et al. disclose a toothbrush that has a head comprising a support member (All figures (14)), a plurality of tufts (Figure 6 (28), (32), (34), (36), and (38)) of bristles supported by their base by the support member, two of the tufts having their bases adjacent to each other and being tilted away from each other at an acute angle relative to the support plate (the two tufts being (34) and (38) as shown adjacent in Figures 6 and 7), wherein both have a cross section that is not round in shape and at least one of these is oval in shape (Figures 6 and 7), a third tuft that has a different cross section than the previous two tufts (Figures 6 and 7 (28)) that is also tilted at an acute angle relative to the support member (Figure 5.)

Further, Beals et al. disclose a plurality of tufts wherein two of the tufts are tiled in substantially the same direction relative to the support member (the two tufts being (36) and (38), see also Figure 5) and having different cross-sections (Figure 6), wherein the first tuft has a different length than the second tuft (Figure 5; Column 3 Lines 4-57), wherein the first tuft has a different number of bristles than the second tuft (Column 3 Lines 4-57 disclose the preferred bristle thickness for all of the bristles to be between

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0.005 and 0.009 inches in diameter with a particular surface area, therefore the larger surface areas have more bristles), and the angle of a third tuft (such as tuft (28)) is different from the angle of tilt of the first and second tufts (Figure 5).

Also, Beals et al. disclose a tuft of bristles that has a cross section that is other than round (tufts (28), (34), (36), and (38) as seen in Figure 6), wherein the tuft has an oval cross-section (tufts (34), (36), and (38)), wherein the tuft is tilted at an acute (as seen in Figures 4 and 5 the bristles are all 75 degrees from the support), two tufts having at least one different characteristic from each other which is length (shown in Figures 3-5), cross-sectional shape (Figure 6), color, material composition, number of filaments, type of extrusion and angle of tilt (Column 2 Lines 3-11; Column 3 Lines 4-57) and a second tuft that is round in shape (Figure 6 (32)).

5. Claims 6-9 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Cyzer, USPN 3,129,449.

Cyzer discloses a toothbrush with movable elements that discloses a head comprising a support member (All Figures (1)) having a plurality of holes extending completely therethrough (as shown in Figure 1), a plurality of tufts of bristles with each tuft extending through one of the holes and having the brushing end projecting from a first side (Figure 1), means for preventing each tuft from being withdrawn from its hole (Figure 1 (5)), a resilient cushion positioned adjacent a second side of the support member so that the tuft can contact the cushion (cushion is Figures 1 (7) and 3 (7a)) so that each tuft is able to oscillate and rotate (Column 2 Line 45 to Column 2 Line 51). The preventing means is a thickened portion at the second end of each tuft being larger

than the hole so as to not be pulled through (Figure 1 (5) or Figure 3 (6) is the thickened portion.) Two of the tufts are tiled away from each other at an acute angle relative to the support member as they rotate and oscillate about the axis (Column 1 Lines 22-26). At least one of the tufts has a cross section that is an oval shape (Figure 5).

6. Claims 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Berl et al., USPN 4,694,844.

Berl et al. discloses a toothbrush having a head that comprises a support member that has a plurality of holes (Figure 3 the support (4) and holes (8)), a plurality of tufts of bristles extending through the holes (Figure 1 (12)), means for preventing each tuft from being withdrawn from its hole being a thickened portion at the second end of the tuft and being larger than the hole (Figures 1-6 (14)), and a resilient cushion adjacent a second side of the support member (Figures 1-10 (18)).

7. Claims 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Leira et al., USPN 2,935,755.

Leira et al. discloses a toothbrush having a head that comprises a support member that has a plurality of holes (Figures 3, 5, and 6 (26)), a plurality of tufts of bristles extending through the holes (Figures 1-6 (5)), means for preventing each tuft from being withdrawn from its hole being a thickened portion at the second end of the tuft and being larger than the hole (Figure 6 (28)), and a resilient cushion adjacent a second side of the support member (Figures 5-6 (20)).

8. Claims 10, 12-14, and 22-26, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Maurer et al., USPN 5,500,970.

Maurer et al. disclose an automatic toothbrush that has a head comprising a support member (Figure 6 (3)) and a plurality of tufts of bristles (Figure 6 (12a)), the support member having a substantially circular surface (as shown in Figure 6), a first tuft being tiled along an imaginary radius that projects from a center of the surface and passes through a base of the first tuft (Figure 6, the tuft immediately left to the one with the lead line 12a) and a second tuft tilted along an imaginary circumference that encircles the center of the circular surface (Figure 6 (the tuft labeled 12a)), wherein the first tuft and second tuft are tilted at different angles (as shown in Figure 6) and the second tuft has a cross section that is not round in shape (Figure 6). The first tuft mentioned above is oval in shape (as shown in Figure 6).

Maurer et al. further disclose a tuft of bristles that has a cross section that is not round (Figure 6 (12a) or the one directly to the left or right of the labeled (12a)), wherein the tuft (the one directly to the left or right of the labeled (12a)) is tilted to an acute angle relative to a top surface, the two tufts having at least one different characteristic being the cross-sectional shape (Figure 6), also including a tuft having a cross section that is round in shape (Figure 6 (10)) wherein it is at an acute angle to a top surface of the head and the other tuft (12a) is oriented perpendicular.

9. Claims 1-5, 15, 18, 20, and 22-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Bojar, USPN D434,565.

Bojar discloses a toothbrush head that has a support member and a plurality of tufts supported by the support member, having tufts adjacent to each other that are tilted away from each other (the groups of elongated tufts of bristles on that make up the

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portion on the lower half of the toothbrush head) at an acute angle to the support member, at least one of these tufts cross sections is not round (again, the elongated tufts are more of an oval or ellipsoid), and the plurality of tufts include a third tuft that has a different cross section (the round tufts that are on the top portion of the toothbrush head.) See all of the figures, especially Figures 10 and 11.

Bojar further discloses a toothbrush head that comprises a support member and a plurality of tufts of bristles supported at the base by the support member, a pair of tufts tilted in substantially the same direction relative to the support member, and a first tuft having a different cross-section than the second (the first tuft is one of the elongated tufts and the second tuft is one of the round tufts that are adjacent to the elongated tuft and situated on the outer perimeter of the head (Figures 5, 6, and 8 show that they are in substantially the same direction.) Bojar also discloses that the first tuft has a different number of bristles than the second tuft as they appear in the figures. A third tuft is included that is angled differently than the angle of tilt of the first and second bristles, the third tuft being the tuft on the center top most portion of the head that appears to be perpendicular.

10. Claims 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Duey, USPN 1,901,230.

Duey discloses a toothbrush that has a head that comprises a support member (Figure 3 (8)), a plurality of tufts of bristles (Figures 1-3 (9) and (10)), a first tuft being tilted in an imaginary radius which projects from a center of the circular surface and passes through a base in the first tuft (Figures 1-3 (10) is tilted along an imaginary

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radius, that happens to be a center radius, which is projected from the center of the circular surface and passes through the base) and a second tuft being tilted along an imaginary circumference which encircles the center of the surface and passes through the base (Figures 1-3 (9) wherein the imaginary circumference is one that passes around the center). The base of the first tuft is closer to the center of the circular surface than a base of the second tuft (Figure 2.) The first and second tufts are tilted at different angles (Figures 1-3).

11. Claims 15-19, 22, 23, 25, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Carlucci et al., USPN D456,607.

Carlucci et al. discloses a brush disk for rotary electric toothbrushes that comprises a support member and a plurality of tufts of bristles being supported at their base by the support member, a pair of the tufts being tilted in substantially the same direction relative to the support member (all of the tufts are tilted perpendicular to the support member), a first tuft having a different cross section than a second tuft (Figure 2), a third tuft also tilted relative to the support member having a different length than the first two tufts (Figure 3), and the first tuft having a different number of bristles than the second tuft (Figure 2 shows larger tufts which would appear to have more bristles than smaller tufts).

Further, the head comprises a tuft of bristles that are other than round in shape that have an oval cross section (Figure 2), at least two tufts that have a different characteristic such as tuft cross section, and a tuft that has a cross section being round in shape.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being obvious over Bojar, USPN D434,565 in view of Paffrath, USPN 6,363,565.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an

invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Bojar discloses all elements above, however does not include specific dimensions for the length and diameter of the bristles of the tufts.

Paffrath discloses that a suitable bristle length to be in the range of 6.5 mm to about 8.5 mm (Column 4 Lines 7-10) and a suitable bristle diameter to be between 4.5 mil and 8 mil (Column 4 Lines 26-27).

It would have been obvious to one of ordinary skill in the art to use the dimensions taught by Paffrath for the brush head of Carlucci et al. to achieve the desired bristle strength.

13. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlucci et al., USPN D456,607.

Carlucci et al. disclose all elements above, however do not include specific dimensions for the length and diameter of the bristles of the tufts.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to provide a bristle length in the range of about 6.7mm to about 8.6 mm in length and a bristle diameter in the range of about 5.5 mil to about 6.5 mil. Applicant has not disclosed that these ranges provides an advantage, is used for a particular purpose, or solves the stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with Carlucci et al. because they are both toothbrush heads for electrical toothbrushes with differently shaped cross sections.

Information Disclosure Statement

14. The AO reference of the Information Disclosure Statement received on 03 September 2002 (Paper No. 7) is a duplicate of the AA reference of the Information Disclosure Statement received on 27 June 2001 (Paper No. 3).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (703) 305-7279. The examiner can normally be reached on Monday-Thursday, 7am - 4:30pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on (703) 308-2920. The fax phone

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numbers for the organization where this application or proceeding is assigned are (703) 746-8772 for regular communications and (703) 873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

LCC

LCC

April 30, 2003



ROBERT J. WARDEN, SR.
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